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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,221	01/18/2007	Bernd Graze	4838-004	3413
23429 7590 06/12/2009 LOWE HAUPTMAN HAM & BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 ALEXANDRIA, VA 22314				
EXAMINER				
PATIDAR, JAY M				
ART UNIT		PAPER NUMBER		
2858				
MAIL DATE		DELIVERY MODE		
06/12/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/577,221

Applicant(s)

GRAZE ET AL.

Examiner

JAY M. PATIDAR

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/88)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the means for separation as set forth in claims 11,25 and a plurality of transmitting and detector coils as set forth in claims 12,26 must be shown or the feature(s) canceled from the claim(s).

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must

be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Claims 7,9,11,14,16-17,21,23,25 are objected to because of the following informalities:

In claims 7,9,14,16-17,21,23, the phrase "optionally adjustable", "preferably", or "in particular" is not positive limitation; they are not positively recited;

In claims 9,23, there is no antecedent basis for "inflection points"; it is vague as to what is "characteristic point", "inflection point", "extrema", "standard positions", "limiting value" or "fringe range". They are not clearly defined.

In claims 11,25, it is unclear as to what a means for the separation is.

Appropriate correction is required.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue (5,045,789).

Inoue discloses a process and an apparatus for detecting and distinguishing parts in a material flow which influence an electromagnetic alternating field (see background of the invention) wherein an alternating electromagnetic field is generated (col. 1, line 35); a detector coil comprising two windings that are connected in opposite directions and interconnected in series (e.g. col. 1, line 38); the parts in material flow move with respect to the coils; the detection signal being derived from a variation of magnetic flux caused by the relative motion between the electromagnetic alternating field and a part located in the material flow and influencing the electromagnetic alternating field (see background of the invention); the detection signal contains the phase signal portion and the amplitude signal portion (see 20; fig. 1); the vectors are calculated from the detected signal, the absolute value and the phase angle of a vector are calculated (fig. 13 shows coordinate system showing vector that represent the detected valued and types of metal); the vector is evaluated with respect to the material specific characteristics and when a material specific characteristic is identified, an identification signal is emitted (e.g. 19, fig. 1). Inoue does not explicitly disclose forming locus curve. Inoue teaches evaluating waveforms and vectors. The use of locus curve in lieu of vector analysis to

identify the metal in a material flow would be a common approach and would be within the level of ordinary skill in the related art. Both analyses would provide the same result. The method claims recited for using the apparatus in claims 1-12 are an inherent use of the apparatus of Inoue and are rejected on the same grounds. One of ordinary skill would find it inherent that the apparatus of Inoue operates in the functional manner claimed by applicant.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAY M. PATIDAR whose telephone number is (571)272-2265. The examiner can normally be reached on M-Thur 8:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assoud can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jay M. Patidar/
Primary Examiner
Art Unit 2862